

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph at page 1, lns. 4-9 with the following amended paragraph:

The present invention relates to a semiconductor nonvolatile memory particularly, a semiconductor nonvolatile memory in which writing and erasing can be electrically carried out (an electrically erasable and programmable read only memory referred to as EEPROM, hereinafter). The invention ~~[[is]]~~ also relates to a semiconductor device.

Please replace the paragraph at page 1, lns. 10-20 with the following amended paragraph:

An electrically erasable and programmable nonvolatile memory (EEPROM) is known as a memory representing semiconductor nonvolatile memories. An EEPROM is a nonvolatile memory and different from a DRAM (dynamic random access memory) and an SRAM (static RAM), which represent other semiconductor memories. Therefore, data in the EEPROM would not be lost even when a power source turns off. Further, the EEPROM has a characteristic superior in integration density, ballistic resistance, consumption power, and writing/reading speed, compared with a magnetic disc representing the nonvolatile memories other than the above EEPROM. Due to such characteristic, a trend using an EEPROM as a substitute for various memories such as a magnetic disc and a DRAM has been increased, and further development in the future is expected.

Please replace the paragraph at page 2, lns. 11-18 with the following amended paragraph:

A range for selecting a reading-out voltage is narrow when the dispersion width of a threshold voltage after writing or erasing is large. It is necessary to widen a space between

threshold voltages in respective storing conditions in order to accurately read out information, which ~~leads increase of~~ increases a writing time or an erasing time. Further, consumption power is also increased in writing or erasing. This is a further serious problem in a multi-value memory transistor in which three or more values of information are stored. Therefore, there has been an idea to decrease the dispersion width of a threshold voltage after writing or erasing.

Please replace the paragraph at page 2, lns. 19-30 with the following amended paragraph:

For example, manufacturing processes ~~[[is]]~~ are improved to manufacture a memory transistor having a uniform characteristic so that the dispersion width of a threshold voltage after writing or erasing can be decreased. This corresponds to make a difference small in writing speed between the memory transistor A in which a writing speed is fast and the memory transistor B in which a writing speed is slow, as shown in FIG. 2B. The threshold voltage after writing is distributed in the vicinity of a predetermined threshold voltage V_{th} when the writing time is set at t_1 . Dispersion width D_1 of the threshold voltage after writing in this case is smaller than dispersion width D_0 shown in FIG. 2A. In order to make a characteristic of a memory transistor uniform, there are so many points for improving the manufacturing processes that there is a limit in making the dispersion width of the threshold voltage small only by improving the manufacturing processes.

Please replace the paragraph at page 23, lns. 15-18 with the following amended paragraph:

A memory transistor according to the invention can be applied to various well-known circuit structures in which a nonvolatile storing element is used. In this embodiment, it will be described that the invention is applied to an NOR type of ~~flash~~ flash memory.

Please replace the paragraph at page 23, lns. 19-25 with the following amended paragraph:

FIG. 7A is a circuit diagram of an NOR type of ~~flush~~ flash memory circuit in which a memory transistor is arranged in a shape of matrix comprising m columns and n lines (m and n are respectively integers equal to or more than 1). A memory transistor in this embodiment is an N type memory transistor, which is described in the first mode and in which writing is self-concluded. That is, in each memory transistor, the threshold voltages in the writing region and the writing control-region are 0 V and 4 V, respectively, when no electric charge is accumulated in the floating gate.

Please replace the paragraph at page 24, lns. 4-6 with the following amended paragraph:

FIG. 7B shows an example of a top view of a memory transistor forming an NOR type of ~~flush~~ flash memory circuit shown in FIG. 7A. In FIG. 7B, a portion corresponding to that of FIG. 7A is marked with a same reference numeral.

Please replace the paragraph at page 24, lns. 10-14 with the following amended paragraph:

An operation of an NOR type of ~~flush~~ flash memory circuit comprising a memory transistor according to the invention as mentioned above will be now described. Writing is carried out by means of a hot electron, while erasing is carried out by means of the tunnel current flowing between the floating gate and the drain region. In the description, writing is carried out per a bit while erasing is carried out in the block.

Please replace the paragraph at page 25, ln. 31 - page 26, ln. 3 with the following amended paragraph:

FIG. 8 illustrates an example of a microprocessor. The microprocessor typically comprises a CPU core, a ~~flush~~ flash memory, a RAM, a clock controller, a cache memory, a cache controller, a serial interface and an I/O (input/output) port. The microprocessor shown in FIG. 7 is, of course, only a simplified example. A circuit of a microprocessor is variously designed in practice according to the usage thereof.

Please replace the paragraph at page 26, ln. 4-12 with the following amended paragraph:

In the microprocessor shown in FIG. 8, a CPU core 801, a cache memory 802, a clock controller 803, a cache controller 805, a serial interface 806 and an I/O port 807 are provided in a CMOS circuit. A memory transistor according to the invention is used for the ~~flush~~ flash memory 804. A nonvolatile memory comprising a memory transistor according to the invention may be used for the cache memory 802. The ~~flush~~ flash memory 804 and the cache memory 802 may be combined with any of structures in the first and second modes for carrying out the invention. A structure in this embodiment can be freely combined with any of structures in the Embodiments 1 to 3 to be put into practice.